DOCUMENT RESUME

ED 306 645 EA 020 822

AUTHOR Odden, Allan
TITLE School Funding Changes: 1960 to 1988.
PUB DATE Feb 89
NOTE 27p.
PUB TYPE Reports - Evaluative/Feasibility (142) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Economic Factors; *Educational Change; *Educational Finance; Elementary Secondary Education; Enrollment Trends; *Financial Support; *Public Education; *School Taxes; State Action

ABSTRACT

Despite pessimism concerning school funding prospects and the deep recession of the early 1980s, this article shows that real school revenues during 1980-1988 continued to increase at substantial rates. The first section discusses school revenues in the context of the country's gross national product and personal income from 1960 to 1980. While fiscal support for schools was strong during this period, teachers' real salaries declined by 19 percent between 1970-1980. The second section briefly describes the funding increases needed to finance the education reforms proposed during the 1980s--both the high standards, expectations, and requirements recommended in "A Nation at Risk" and programs to upgrade the teaching profession proposed in "A Nation Prepared." The final section provides national, regional, and state detail on educational finance changes in relation to funds needed for reforms. This section also discusses changes in total education revenues from all sources and on a per pupil basis, focusing on the 1980, 1983, and 1988 periods and comparing changes in the 1980s to those in the 1970s. During the 1980s, education funding moved upward, but consumed a smaller percentage of gross national product and personal income. The 1988 figure (3.57 percent) is higher than the 1983 figure (3.54 percent), but less than the 1980 figure (3.61 percent). However, funding per pupil rose 33 percent in an era of continued tax and expenditure limitation. This effect is partly due to small enrollment increases between 1980 and 1988. Average teacher salaries are also rising in real terms (22 percent), though lagging behind total real funding growth (26 percent) and per pupil growth (31 percent). Most significantly, fiscal increases during the 1980s have exceeded those of the 1970s. States are now the lead fiscal agents for school funding. Included are nine tables. (MLH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED306645

SCHOOL FUNDING CHANGES: 1960 TO 1988

BY

Allan Odden
School of Education
University of Southern California
Los Angeles, California 90089-0031

February 1989

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.

Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Allan Odden

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

EA 020 822

SCHOOL FUNDING CHANGES: 1960 to 1988*

There have been significant changes in public school funding in the United States since 1960. Public schools have enjoyed a history of continuous increases in real funding in both total and per pupil terms during this period. While catalysts for this support can be traced, in part, to well known critical events -- Sputnik in the 1950s, poverty and equity programs in the 1960s, enrollment growth in both decades, school finance and property tax reform in the 1970s, and education quality reforms in the 1980s -- the long term nature of continued rising school funds to a large degree reflects underlying, strong citizen support for America's public schools combined with the health of the country's growing economy.

Despite both pessimism at the beginning of this decade about the outlook for school funding and the long and deep recession in which the decade began, this article shows that real school funding between 1980 and 1988 continued to increase at substantial rates. The first section provides an overview of school revenues in the context of the country's gross national product and personal income from 1960 to 1980. The next section briefly describes the funding increases needed to finance the education reforms proposed during the 1980s -- both the higher standards, expectations and requirements such as those recommended in A Nation at Risk,[1] and the programs to upgrade teaching into a profession such as those recommended in A Nation Prepared.[2] The last section provides detail for the country as a whole and for several regions on education finance

---

* I would like to thank John Geranios for extensive research assistance in preparing this article.

[1]National Commission on Excellence and Equity in Education, A Nation At Risk, Washington, D.C.: U.S. Department of Education, 1983.

[2]Carnegie Forum on Education and the Economy, A Nation Prepared: Teachers for the 21st Century, Washington, D. D.: Carnegie Forum, 1986.

changes during the 1980s up to 1988,[3] and compares the increases to the levels needed to fund the proposed reforms.

Education Funding From 1960 to 1980

Real revenues for education, in both total and per pupil terms, increased during each decade from 1960 to 1980 (Table 1). Total revenues rose 158 percent from 1960 to 1970 and another 149 percent from 1970 to 1980. The per pupil increases were 88 percent and 171 percent, respectively. The smaller per pupil increase relative to total increase from 1960 to 1970 probably reflects the large enrollment growth during that time period, while the larger per pupil increase from 1970 to 1980 most likely reflects enrollment decline in that decade. Thus, the data show that total and per pupil revenues continued to increase both during enrollment growth and enrollment decline.

Teachers' salaries also rose over these two decades, by 89 percent in the 1960s and 72 percent in the 1970s. The figures show that, especially during the 1970s, average teacher salaries increased by a much smaller percentage than either total or per pupil revenue growth. Put differently, revenue rises did not translate into similarly large teacher salary increases. In fact, average teacher salaries actually dropped 19 percent in real terms during the 1970s, even though rising in nominal terms. This trend reversed the pattern from 1960 to 1970, when average teachers salaries increased in real terms by 41 percent. Thus while fiscal support for schools was strong

---

[3]The analyses in this article are based on educational data included in the National Education Association's Estimates of School Statistics. The 1988 figures are estimates provided by NEA; revised estimates from published documents are used for all previous years. Tables include revenue rather than expenditure figures; the pupil count is fall enrollment rather than average daily attendance or average daily membership. Two price indices are used to adjust nominal dollars to real, 1988 dollars: the national consumer price index for an urban family of four and the deflator for state and local government services. Over all time periods analyzed, these two indices lead to only marginally different results. Figures are analyzed for 1980 -- the beginning of the decade, 1983 -- the beginning of the education reform era, and 1988 -- the last school year for which data are available.

from 1960 to 1980, the decline of real salaries for teachers represents a point of divergence from the overall record. Overall, the figures show that revenue growth for public schools was robust in the two decades prior to the 1980s, both in times of enrollment growth and enrollment decline.

Revenue Needs for Education in the 1980s

Despite this strong record of continued funding rises, there was pessimism in the early 1980s about the fiscal outlook for schools for the next decade. Experts predicted that a fiscal steady state in terms of real revenues per pupil would be an optimistic scenario.[4] Education oriented legislators were moving to other functions.[5] Enrollments were declining. Citizen support for public schools had fallen to the lowest level in recent history. Real school funding, indeed, fell in the early 1980s.[6] Little seemed to augur good fortune for school financing in the 1980s.

Release of the Nation at Risk Report in 1983, however, launched the education reform movement and marked the end of the downward trajectory of public elementary and secondary school revenues. During the next four years, dozens of reports were released by state governors, legislators and educators, by national and state business groups and even by federal agencies. The nation's economy rebounded from a deep recession, so tax revenues rose and states had excess funds to finance new initiatives. Two-thirds of the states responded and enacted versions of comprehensive education reform programs.

Further, governors made improving the education system a top, long term policy priority. Rather than falling off the policy agenda as political leaders moved to other issues (the usual

---

[4]Michael Kirst and Walter Garms, "The Political Environment of School Finance Policy in the 1980s," School Finance Policies and Practices, ed. by James Guthrie. Cambridge, Mass.: Ballinger, 1980.

[5]Alan Rosenthal and Susan Fuhrman, Legislative Education Leadership in the States. Washington, D.C.: Institute for Educational Leadership, 1981.

[6]Allan Odden, Education Finance in the States: 1984. Denver, Colo.: Education Commission of the States, 1984.

practice), education's high priority on the policy agenda of state governments and the nation's business community solidified. The 1986 report of the nation's governors, A Time for Results, suggested that education would remain a top, state, policy priority for another five years. Further, a "second round" of education reform was launched by proposals to upgrade teaching into a profession.[7] In short, state political, education and business leaders became firmly committed to improving the nation's schools and to raising the status, responsibility, competencies and pay of teachers.

Political leaders put education at the top of the policy priority list even though the proposed reforms required substantial financial commitments. The first round of reforms for raising standards, requirements, expectations and strengthening the curriculum, such as those proposed in A Nation at Risk and the Education Commission of the States' Action for Excellence[8] was estimated to cost an additional 20-25 percent in real revenues.[9] The second round of reforms for enhancing the teaching profession, such as those proposed by the Carnegie Forum on the Economy and the Holmes Group was also estimated to cost an additional 25 percent.[10] While there was some overlap in the two sets of reform proposals, making it difficult to produce an estimate of what it would cost to accomplish the goals of both, it probably would be safe to say that real revenues would need to rise between 25 and 40 percent to fund such reform

---

[7]Carnegie Forum, A Nation Prepared Holmes Group, Tomorrows Teachers, East Lansing, Michigan: The Holmes Group, 1986.

[8]Education Commission of the States, Action for Excellence, Denver, Colo.: Education Commission of the States, 1983.

[9]Allan Odden, "Financing Education Excellence," Phi Delta Kappan, vol. 65, no. 5, January 1984, pp. 311-318. The average cost of the first round of reform of an additional 20-25 percent is a rough, nationwide figure. The cost is undoubtedly higher in many states, especially those that began 1983 with a low expenditure base and fewer quality oriented programs. Individual state estimates for costs of reform need to be used in comparing actual funding rises to funding increases needed to finance comprehensive reform.

[10]Carnegie Forum, A Nation Prepared.

recommendations.[11]

In addition to dollars needed to fund such reform proposals, schools needed money to fund modest enrollment growth, (caused by the baby boomlet of the post-war generation) and rises in both legal and illegal immigration. Further, all school enrollment projections showed public school enrollment increasing in both the number and percentage of poor and minority students,[12] students who needed extra education services in order to perform adequately on academic tasks.

In short, total funding needs for the 1980s were large, easily approaching an increase of 50 percent in real terms if all the hopes of the education reformers (who were the political, business and education leaders of the country) were to be realized, and enrollment growth and the rising diversity of the student body were to be addressed adequately.

Changes in Education Funding From 1980 to 1988

This section addresses the question of educational revenue increases during the 1980s. Initially the trend was unclear, but during the past few years the trend of strong growth has become clear. In 1984, Odden[13] identified the high costs of several reforms suggested by national and state blue ribbon committees and, reflecting the fiscal pessimism of the time, recommended that lower cost proposals should be given serious consideration. Two years later, Odden[14] suggested

---

[11]A reasonable question to raise about the substance and funding of education reform is whether it is "good," i.e., whether education reform benefits all children equally and whether new revenues for reform worsen the equity of the state/local tax burden. On the former point, there is insufficient research to make any conclusions, but a recent study in California suggests that education reform and services for poor children are not inherently incompatible. On the latter point, there is no focused research to date. But education reform dollars seemed to derive from increased local property taxes and, in several states, increased state sales taxes. Since these are two taxes generally agreed to be, at best, proportional in the mid-income ranges and often regressive for lower incomes, the issue of changes in taxpayer equity needs to be addressed.

[12]Harold Hodgkinson, All One System, Washington, D.C.: Institute for Educational Leadership, 1983.

[13]Odden, "Financing Educational Excellence."

[14]Allan Odden, "Education Finance 1985: Rising Tide or Steady Fiscal State?" Educational Evaluation and Policy

that funding increases between 1983 and 1985 were modest and fell short of the types of increases needed to fund the reforms outlined in the 1983 reports. Finally, in an analysis of projected 1985-86 funding increases in just reform states, Odden[15] reached the same conclusion: funding rises seemed to be falling far short of what was needed to finance comprehensive reforms.

Based on complete data for all states from 1980 to 1988, however, this article reaches different conclusions and is at odds with the pessimism of the previous reports. More recent data suggest that the country overall has provided large infusions of money for education in the 1980s which, even after adjusting for inflation (quite low) and enrollment growth (positive but modest), now approach the 20-25 percent increase range -- the conventional, cost estimates for the first round of reform.

This section discusses changes in total education revenues from all sources and total revenues on a per pupil basis and concentrates on the 1980, 1983 and 1988 periods. It also comparises school funding changes during the first eight years of the 1980s to changes during the entire decade of the 1970s. It begins with an overview of education funding changes relative to gross national product and personal income from 1980 to 1988.

Gross National Product, Personal Income and Education Funding in the 1980s

From 1980 to 1988 education funding began to move upward in total terms but not as a percentage of the nation's economic resources (Table 2). From 1980 to 1988, gross national product rose from $2632 to $4824 billion, a 83.3 percent increase in nominal dollars. Similarly, personal income rose from $2165 to $4055 billion over this time period, an even larger 87.3

Analysis, vol. 7, no. 4, Winter 1985, pp. 395-407.

[15]Allan Odden, "Sources of Funding for Education Reform," Phi Delta Kappan, vol. 67, no. 5, January 1986, pp. 335-340.

percent increase. Over the same time period, education funding (in nominal terms) rose from $95 billion to about $172 billion, a rise of $77 billion or 81.5 percent, a growth rate slightly lower than that for either gross national product or personal income. This would suggest that education, even though growing substantially, was consuming a smaller percentage of gross national product and personal income in 1988 than in 1980.

The figures in Table 2 confirm this conclusion. Education funding relative to GNP equalled 3.61 percent in 1980, fell to 3.54 in 1983 and rose to 3.57 percent in 1988. The 1988 figure is higher than the 1983 figure, but less than the 1980 figure. Thus, relative to GNP, education funding has not yet regained its status as of the beginning of the decade. The numbers relating education funding and personal income are less optimistic. In 1988, the percent is below that for either 1983 or 1980. In short, while a growing economy and rising personal income has helped to spur increased education funding (i.e. it is easier to find more tax dollars in times of economic growth than economic decline), the evidence so far in the 1980s does not suggest that public elementary and secondary education is gaining a larger share of the country's economic resources.

Changes in Total Education Revenues During the 1980s

Revenues for public schools, though, are rising substantially. Tables 3 and 4 present data on the level of and changes in total nominal and real revenues for school for the periods 1980, 1983 and 1988. The figures include total state, local and federal revenues. Both the implicit price deflator for state and local government purchases (price deflator) and the consumer price index for an urban family of four (CPI-U), are used to determine real inflation adjusted figures.[16] The

[16]There is some disagreement over which price deflator is most appropriate. The CPI-U figure is the more traditional price deflator but it measures price differences for goods and services families, not school districts,

numbers show large increase, however measured, for the nation as a whole.

First, from 1980 to 1988 total real funds for public schools increased from $139.9 billion to $172.4 billion, a rise of $32.5 billion or 23 percent, using the implicit price deflator. Using the consumer price index (CPI-U) total real funds for public schools increased from $136.7 billion to $172.4 billion, a rise of $35.7 billion or 26 percent. The real increase after just 1983 was $25.1 billion or 17 percent (price deflator) and $29.1 billion or 20 percent (CPI-U). These funding changes show that new dollars for schools have increased substantially during the 1980s, and since 1983 have more than just made up for any losses incurred during the recession of the early 1980s.

As expected, the figures differ substantially by region and state. Using the CPI-U, real total revenues rose by a mere 10 percent in the Great Lakes States, 11 percent in the Plains States, and 15 percent in the New England States over the 1980 to 1988 period, but rose 27 percent in the Mideast States, 34 percent in the Southeastern States, 33 percent in the Rocky Mountain States and 49 percent in the Far Western States!

For just the 1983 to 1988 period, moreover, total funding using the CPI-U to adjust for inflation, rose 30 percent in the Far Western States, 26 percent in the Southeast, 24 percent in the New England States and 24 percent in the Mideastern States. Though not shown in these tables, figures for several individual states were even higher. On the other hand, there were several states that struggled with school finances. Total funding fell in real terms in Massachusetts, Michigan, Iowa, Arizona, Oklahoma, and after 1983 barely increased in Alabama, North Dakota, New Mexico and Oregon. The reasons for the fiscal strains in these states varied but included more

---

purchase. The implicit price deflator for state and local government purchases more closely depicts price changes for school district purchases. In general when the CPI is high, the price deflator is lower, and vice-versa. It turns out that both deflators lead to the same substantive conclussion, although produce marginally different real revenue figures.

recent tax expenditure limitations, difficulties in rebounding from the early 1980s recession, declines in prices of farm products and farm land, and the drop in oil prices.

Nevertheless, it is difficult to escape the general conclusion that education received large increases in total revenues that approached generally the 20-25 percent level in real terms, and exceeded this level in many regions and several individual states. The fact is that the nation (with a growing economy) followed reform rhetoric with substantial new funding resources.

Changes in Total Revenues Per Pupil During the 1980s

Tables 5 and 6 show that on a per pupil basis, the nationwide education revenue increase figures were even more impressive. In part due to the small enrollment change between 1980 and 1988 and the low inflation of 1986, 1987 and 1988, real revenues per pupil increased at a faster rate than total revenues. Real revenues per pupil in 1988 were $4,297. In 1980 real revenues per pupil were $3279 (CPI-U) and $ 3384 (price deflator), representing increases of 31 and 27 percent respectively. The real increase from 1983 to 1988 was 19 and 16 percent, respectively.

Again, there are differences by region. Real revenues per pupil rose the least in Rocky Mountain, Plains and Southwest Regions during the 1983 to 1988 period. For the 1980 to 1988 period the Plains, Rocky Mountain, Great Lakes Regions experienced the lowest levels of real increases; these are the regions which have had the most difficulty recovering from the early 1980s recession and which suffered from depressed agricultural and oil economies. On the other hand, real revenues per pupil rose in the Mideast, a region with a large enrollment decline. The per pupil increase is at least partially inflated by the enrollment loss. In the Southeast, however, a region of strong education reform activity, real revenues per pupil rose more than the national average for the 1980 to 1988 as well as for the 1983 to 1988 periods. Finally, both total and per pupil increases were healthy for the Far West region, which experienced both substantial enrollment and economic

growth.

The bottom line, though, is that school funding rose at rapid rates during the first several years of the 1980s. From 1980 to 1988, funding per pupil rose an impressive 33 (CPI-U) or 27 (price deflator) percent in real terms on average across the country. In an era of continued tax and expenditure limitation, when the legacy of controlling the growth of government is still strong, these funding rises stand out. Education continues to receive new funds, experiencing a hike of one-third in real dollars per pupil thus far during the 1980s.

Changes in Teacher Salaries During the 1980s

Tables 7 and 8 suggest that teacher salaries have benefited from the funding increases in the 1980s and have risen too. Real teacher salaries, now using just the CPI-U, began the decade at $22,975, rose modestly to $24,651 in 1983 and then rose more rapidly to $28,031 in 1988. Most of the increase occurred between 1983 and 1988, when real salaries rose 14 percent, as compared to only 22 percent between 1980 and 1988. While not having risen to the purchasing power of the average teacher salary in 1970, at least during the past five years -- when hiking teacher salaries has been a policy goal in several states -- average teacher salaries have risen significantly..

Again there is variation by region, but the variation has been larger since 1983 than over the entire decade from 1980 to 1988. Over this longer period, real average teacher salaries, on a region by region basis, rose between 19 and 26 percent, or about 22 plus or minus a few percentage points. The figures suggest that, nationwide, average teacher salaries are growing in real terms, even though salary growth lags both total real funding growth (26 percent) and real funding per pupil growth (31 percent).

Changes in the 1980s Compared to Changes in the 1970s

Another way to assess changes in education funding in the first eight years of the 1980s is to compare them to changes during the 1970s. Total school funding for the nation rose by 17 percent in real terms (using CPI-U) between 1970 and 1980. But that must be compared to the 26 percent increase in real funding in just the first eight years during the 1980s.

In terms of revenues per pupil, funding rose 28 percent in real terms in the 1970s, but was up 31 percent between 1980 and 1988; these numbers are more impressive since a significant portion of the 1970s' rise was due to declining enrollments. Enrollments rose just a bit in the 1980s, so the real increase has been caused by adding more money.

But the most significant finding that derives from these figures indicate that fiscal increases in the first eight years of the 1980s exceed those of the 1970s, reverses the declines at the beginning of the decade and puts school finances on a new trajectory of upward movement.

These comparisons add further support to the general conclusions suggested above that education funding for the nation rose rapidly in the 1980s. While education reform was not the only factor stimulating the rise, it clearly was a major factor with the funding hikes since 1983 large not only nationwide but even larger in several regions and individual states. The facts suggest that those who at the beginning of the decade were pessimistic about the funding prognosis for the decade were incorrect. Not only did funding rise in the 1980s, but funding also rose in percentage and dollar terms that are now greater than all increases in the 1970s -- even after adjusting for inflation.

The States Take the Lead

A final comment on education funding changes in the 1980s is that the states seem to be leading these fiscal events. Not only do states seem to have taken political and substantiative leadership, but states also are the lead fiscal agents for school funding as shown in Table 9. The

numbers show that state revenues as a percent of total revenues for public schools have risen every decade since 1960, and now represent the largest source of school funding at just under 50 percent. While the federal fiscal role grew in the 1960s and 1970s, reaching a peak of 9.2 percent in 1980, it fell substantially in the 1980s and with the large federal deficit is unlikely to grow dramatically even with an education President. Likewise, local revenues, which fell from over 50 percent to a low of 42 percent in 1980, and then rose a bit to 44 percent in both 1983 and 1988, are unlikely to "catch up" with the state. In short, states are the leaders in education funding and that leadership is undergirded by a 30 year trend that now confirms the states in that lead fiscal role.

Conclusions and Policy Implications

From 1980 to 1988, the country moved rapidly toward funding the "first wave" of education reform that was launched by the 1983 Nation at Risk report. If the types of reforms recommended in that report required, on average, an additional 20-25 percent, the nation as a whole came close to producing that level of extra money between 1983 and 1988. Such rapid and large dollar increases made hope realistic for similar dollar increases to transform teaching into a full profession, the second wave" of reform launched by the Carnegie Forum and Holmes Group reports.

While the needs and popularity of education reform had been the primary stimulus for funding increases up through 1988, a growing economy generally and the fiscal slack that is usually produced by an economy rebounding from a deep recession undoubtedly also contributed importantly to financial improvements for the nation's schools. The figures in this article show, moreover, that funding increases after 1983 more than made up for any losses that occurred in the early 1980s. The funding increase for the eight years in the 1980s was above that for just the period from 1983 to 1988.

The fact is that large numbers of new dollars flowed into the country's public school system, most under the guise of reform. A fair question to ask is whether there was evidence that the system changed. In some states, such evidence existed. In California, for example, between 1983, the year before reform, and 1986, three years into reform, high school enrollments rose 22 percent in science, 19 percent in mathematics, 12 percent in foreign language, and 34 percent for advanced placement courses. For specific courses, enrollments in calculus and analytic geometry courses rose 33 percent, rose 21 percent in comprehensive English , and rose 30 percent in World History. Between 1985 and 1986, science rose another 13 percent, drama 13 percent, and economics by 24 percent.[17] These changes, large also by any measure, suggest that the California education system changed substantially and in accord with reform objectives. Further, student performance on statewide tests also improved, with seniors in 1988 scoring the highest ever on the California Assessment Test.

South Carolina also produced impressive data on reform impacts. Average elementary students scored at the 58th percentile on nationally normed tests, above the national average, and average secondary student scored at the 51st percentile. Average SAT scores rose by 28 points, student absences were down, truancy declined and teacher satisfaction had risen.

More results from more states are needed. But for states that sought to collect data on whether reform made a difference, the results generally showed that change occurred, and, in many areas, indicate the education system changed to a degree similar to the funding changes.

By 1988, however, educational fiscal and system gains were at-risk in many states, some experiencing economic downturns, some having new political leaders who seemed initially not to place education improvement as high on the policy agenda as their predecessors, and some waiting

---

[17]Policy Analysis for California Education, Conditions of Education in California: 1986-87, Berkeley, Calif.: University of California, Policy Analysis for California Education, 1986.

for evidence that the reform of the past few years had produced results. These realities made many wonder the overall current reform momentum could be sustained.

Education reform and school finance, however, occur within a decentralized, political system within these United States. There always will be some degree of uncertainty. For education to prosper, it needs to stay high on the policy agenda, and be a capital building issue for political leaders. From 1983 to 1988, education reform had been good politics, education funding had risen rapidly, and the quality of the education system seemed also to improve.

After 1988, education reform was likely to continue to be good politics, since the nation's governors continued to lead the reform movement and supported the expensive reform proposals to turn teaching into a full profession, and an individual who wanted to be an "education leader" was elected as President of the country. Especially if states continued to show the kinds of systems improvements that California and South Carolina had, continued funding increases -- even at the level needed to finance teacher reform -- were a reasonable prognosis. It might take more than another four years to fund teacher reform. But based on the fiscal track record from 1980 to 1988, and the long term public fiscal support of schools dating back to 1960, the likelihood of funding continued education improvements, including teacher reform, can be viewed optimistically.

TABLE 1

SELECTED SCHOOL FINANCE VARIABLES FROM 1960 TO 1980
IN NOMINAL AND REAL TERMS

YEAR	Total Revenues (billions)	Total Revenues Per Pupil	Average Teacher Salary
1960	$14.8	$409	$4995
1970	38.2	839	9265
1980	95	2279	15966

Source: Survey of Current Business, 1960, 1970, 1980 and NEA, Estimates of School Statistics, Selected Years.

TABLE 2

GROSS NATIONAL PRODUCT, PERSONAL INCOME AND EDUCATIONAL FUNDING DURING THE 1980S

YEAR	GNP (billions)	Personal Income (billions)	Educational Funding (billions)	Ed. Funding as a percent of GNP	Personal Income
1980	$2631.7	$2165	$95.0	3.61	4.39
1983	3405.7	2744	120.4	3.54	4.39
1988	4823.8(est)	4055(est)	172.4	3.57	4.25

	Percent Change 1983 to 1988	Percent Change 1980 to 1988
GNP	41.6%	83.3%
Personal Income	47.8%	87.3%
Education Revenues	43.2%	81.5%

Source: Survey of Current Business, 1980, 1983, 1988 and NEA, Estimates of School Statistics, Selected Years.

TABLE 3

TOTAL NOMINAL AND REAL REVENUES FOR PUBLIC SCHOOLS (MILLIONS);
1988, 1983 AND 1980

REGION	1988 Nominal	1983 Nominal	1983 Real (IPD)*	1983 Real (CPI-U)**	1980 Nominal	1980 Real (IPD)*	1980 Real (CPI-U)**
New England Total	$9,578	$6,470	$7,913	$7,699	$5,764	$8,561	$8,296
Mideast Total	37,455	25,362	31,018	30,181	20,460	30,383	29,442
Southeast Total	34,554	23,052	28,193	27,432	17,950	26,659	25,833
Great Lakes Total	28,742	22,631	27,678	26,931	18,175	26,990	26,154
Plains Total	11,754	8,884	10,865	10,572	7,371	10,946	10,607
Southwest Total	17,508	12,476	15,258	14,846	8,835	13,120	12,714
Rocky Mtn. Total	5,732	4,117	5,035	4,899	2,984	4,431	4,294
Far West Total	27,056	17,441	21,330	20,755	12,642	18,773	18,192
AVERAGE - 50 States Plus D.C.	172,379	120,433	147,290	143,315	94,181	139,863	136,742

* Implicit Price Deflator, State and Local Government Purchases.
** Annual CPI-U figures for an urban family of four.

Source: Survey of Current Business, 1980, 1983, 1988 and
NEA, Estimates of School Statistics, Selected Years.

TABLE 4

PERCENT CHANGE IN TOTAL NOMINAL AND REAL REVENUES FOR PUBLIC SCHOOLS (MILLIONS); 1983 TO 1988, 1980 TO 1988

REGION	PERCENT CHANGE 1983 TO 1988 Nominal	Real (IPD)*	Real (CPI-U)**	PERCENT CHANGE: 1980 TO 1988 Nominal	Real (IPD)*	Real (CPI-U)**
New England Total	48%	21%	24%	66%	12%	15%
Mideast Total	48%	21%	24%	83%	23%	27%
Southeast Total	50%	23%	26%	93%	30%	34%
Great Lakes Total	27%	4%	7%	58%	6%	10%
Plains Total	32%	8%	11%	59%	7%	11%
Southwest Total	40%	15%	18%	98%	33%	38%
Rocky Mtn. Total	39%	14%	17%	92%	29%	33%
Far West Total	55%	27%	30%	114%	44%	49%
AVERAGE - 50 States Plus D.C.	43%	17%	20%	83%	23%	26%

*Implicit Price Deflator, State and Local Government Purchases.
** Annual CPI-U figures for an urban family of four.

Source: Survey of Current Business, 1980, 1983, 1988 and NEA, Estimates of School Statistics, Selected Years.

TABLE 5

NOMINAL AND REAL REVENUES PER PUPIL FOR PUBLIC SCHOOLS;
1988, 1983 AND 1980

REGION	1988 Nominal	Nominal	1983 Real (IPD)*	Real (CPI-U)**	Nominal	1980 Real (IPD)*	Real (CPI-U)**
New England Total	$5,122	$3,181	$3,890	$3,785	$2,547	$3,782	$3,665
Mideast Total	6,031	3,875	4,739	4,611	2,840	4,217	4,087
Southeast Total	3,530	2,433	2,976	2,895	1,829	2,716	2,632
Great Lakes Total	4,112	3,111	3,805	3,702	2,295	3,408	3,303
Plains Total	4,012	3,022	3,696	3,596	2,333	3,465	3,357
Southwest Total	3,701	2,835	3,467	3,374	2,083	3,093	2,997
Rocky Mtn. Total	3,953	2,995	3,663	3,564	2,228	3,309	3,206
Far West Total	4,399	3,084	3,772	3,670	2,343	3,479	3,372
AVERAGE - 50 States Plus D.C.	4,297	3,034	3,711	3,610	2,279	3,384	3,279

* Implicit Price Deflator, State and Local Government Purchases.
** Annual consumer price index for an urban family of four.

Source: Survey of Current Business, 1980, 1983, 1988 and NEA, Estimates of School Statistics, Selected Years.

TABLE 6

PERCENT CHANGE IN NOMINAL AND REAL REVENUES PER PUPIL FOR PUBLIC SCHOOLS (MILLIONS); 1983 TO 1988, 1980 TO 1988

REGION	PERCENT CHANGE 1983 TO 1988 Nominal	Real (IPD)*	Real (CPI-U)**	PERCENT CHANGE: 1980 TO 1988 Nominal	Real (IPD)*	Real (CPI-U)**
New England Total	61%	32%	35%	101%	35%	40%
Mideast Total	56%	27%	31%	112%	43%	48%
Southeast Total	45%	19%	22%	93%	30%	34%
Great Lakes Total	32%	8%	11%	79%	21%	24%
Plains Total	33%	9%	12%	72%	16%	24%
Southwest Total	31%	7%	10%	78%	20%	23%
Rocky Mtn. Total	32%	8%	11%	77%	19%	23%
Far West Total	43%	17%	20%	88%	26%	30%
AVERAGE - 50 States Plus D.C.	42%	16%	19%	89%	27%	31%

* Implicit Price Deflator, State and Local Government Purchases.
** Annual CPI-U figures for an urban family of four.

Source: Survey of Current Business, 1980, 1983, 1988 and NEA, Estimates of School Statistics, Selected Years.

TABLE 7

NOMINAL AND REAL AVERAGE CLASSROOM TEACHER SALARIES FOR PUBLIC SCHOOLS;
1988, 1983 AND 1980

REGION	1988 Nominal	1983 Nominal	1983 Real (CPI-U)	1980 Nominal	1980 Real (CPI-U)
New England Total	$29,654	$20,162	$23,993	$16,325	$23,492
Mideast Total	31,608	23,065	27,447	18,175	26,154
Southeast Total	24,281	17,549	20,883	13,712	19,732
Great Lakes Total	29,781	22,202	26,420	16,874	24,282
Plains Total	25,306	18,955	22,556	14,381	20,694
Southwest Total	25,313	19,464	23,162	14,201	20,435
Rocky Mtn. Total	26,199	20,530	24,431	15,322	22,048
Far West Total	31,801	23,936	28,484	17,910	25,772
AVERAGE - 50 States Plus D.C.	28,031	20,715	24,651	15,966	22,975

Source: Survey of Current Business, 1980, 1983, 1988 and NEA, Estimates of School Statistics, Selected Years.

TABLE 8

PERCENT CHANGE IN TOTAL NOMINAL AND REAL TEACHER SALARY FOR PUBLIC SCHOOLS; 1983 to 1988, 1980 to 1988

REGION	PERCENT CHANGE 1983 TO 1988 Nominal	Real (CPI-U)	PERCENT CHANGE: 1980 101988 Nominal	Real (CPI-U)
New England Total	47%	24%	82%	26%
Mideast Total	35%	15%	74%	21%
Southeast Total	38%	16%	77%	23%
Great Lakes Total	34%	13%	76%	19%
Plains Total	34%	12%	76%	22%
Southwest Total	30%	9%	78%	24%
Rocky Mtn. Total	28%	7%	71%	19%
Far West Total	33%	12%	78%	23%
AVERAGE - 50 States Plus D.C.	35%	14%	76%	22%

Source: Survey of Current Business, 1980, 1983, 1988 and NEA, Estimates of School Statistics, Selected Years.

TABLE 9

PERCENT OF SCHOOL REVENUE BY SOURCE:
1960 TO 1988

YEAR	SOURCE		
	Local	State	Federal
1960	56.5%	39.1%	4.4%
1970	52.1%	39.9%	8.0%
1980	42.0%	48.9%	9.2%
1983	44.0%	48.4%	5.8%
1988	44.0%	49.8%	6.2%

Source: NEA, Estimates of School Statistics, Selected Years.